

REMARKS/ARGUMENTS

Claims 1-30 represent the set of claims currently pending in this application. Reexamination and reconsideration of the present application is respectfully requested in view of the detailed arguments tendered below.

The Present Application:

For purposes of review, the subject application is directed to the unloading of a hierarchical database. While unload operations on hierarchical databases are well known in the prior art, the novel and unobvious features characteristics of the present invention reside in the ability to selectively unload portions of database records on a segment granularity.

Prior art unload operations select entire database records to unload, intending that the unload utility be used primarily for database backup and database reorganization. For this particular task, the database record, or a plurality thereof, is the correct unit to retrieve and write to an unload file. However, by incorporating the teaching within the subject application centered upon segment selectivity, many other meaningful database tasks are easily accomplished without the need to create a new custom application program. For example, a new database utilizing only a subset of segments from a currently existing database is easily created utilizing a segment specific selection criteria during the unload operation.

Use of the term "segment" within the present application refers to an IMS term that is precisely defined within IMS terminology and well known to those of ordinary skill in the art. Briefly, a segment represents a portion of a database record containing one or more fields, established by a database designer and designated to reside at a particular level within the hierarchy of the database record.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1-30 under 35 U.S.C. 103(a) as being unpatentable over Murray et al. (Patent No. 6,622,142 B1, filed April 13, 2000, hereinafter Murray) and Koeppen (Patent No. 5,761,667, filed August 7, 1996, hereinafter Koeppen). Applicant respectfully traverses these rejections for the reasons set forth below.

Claims 1, 11, 12, and 22

The Examiner rejected claims 1, 11, 12 and 22 under 35 U.S.C. 103(a) as being unpatentable over Murray. The Examiner asserts that Murray teaches or suggests a global directive, referring applicant to figure 3, element 48 'Scan cylinders window' and element 51 'Scan cylinders window'; and col. 6, lines 36-67. Applicant respectfully disagrees with the Examiner's assertion. The relied upon sections of the reference fails to teach or suggest applicant's "global directive".

The 'Scan cylinders window' taught by Murray is more accurately described as a floating window which progressively moves through the database as database records are processed, encompassing a predetermined number of cylinders prior to and after the currently processed database record. This element has no resemblance or relationship to the "global directive" taught in the subject application. Therefore, Murray does not teach or suggest (nor is there a need for the purposes of Murray) a "global directive" as this term is defined and used within applicant's specification, as summarized below.

The present application defines a global directive as representing a global bias directed to the inclusion or exclusion of all segment types not otherwise covered by a segment directive (in applicant's specification, please see Figure 5 in conjunction with further discussion on page 11, lines 11-21).

For example, if a database record is composed of 150 segment types and a new database is to be created that requires only 10 of these segment types, then it is efficient to set the global directive to exclude. This is because the segment directives can be set to include only the 10 segment types that are needed, rather than having to set 140 segment types to "exclude" the unwanted segment types. On the other hand, if the new database requires 140 of the 150 currently defined segment types, then setting the global bias to "include" is the most efficient. This is because only 10 segment directives are required to "exclude" the segment types to be eliminated from the database to be newly created, rather than having to set 140 segment types to "include" the required segment types.

The Examiner further asserts that Murray teaches or suggests a set of segment directives, referring applicant to col. 6, lines 18-25; col. 7, lines 14-27; col. 9, lines 55-67; and col. 10, lines 1-11. Applicant respectfully disagrees with the Examiner's assertion. The relied upon sections of the reference fails to teach or suggest applicant's "set of segment directives."

The segment processing described by Murray is directed to the hierarchical traversing of segments in the database record as they are unloaded and reorganized. Reorganization is a primary objective of Murray and, accordingly, segments will move to new locations within the reorganized database. This implies that the various segment interrelationships implemented with RBA pointers must be adjusted to reflect the new locations. However, at the end of the day, it is very clear that all segment types comprising a database record are unloaded, as the database is reorganized in its entirety. Therefore, Murray does not teach or suggest (nor is there a need for the purposes of Murray) a set of segment directives as this term is defined and used within applicant's specification, as summarized below.

The present application defines a segment directives as a specification directed to the inclusion or exclusion of segments of a specified segment type. (in applicant's specification, please

see Figure 5 in conjunction with further discussion on page 11, lines 11-21; and Figure 4 in conjunction with further discussion on page 10, lines 12-22).

The Examiner also asserts that Murray teaches or suggests "building a logical processing map", referring applicant to the Abstract, lines 32-39; col. 2, lines 52-67; and col. 10, lines 12-35. Applicant respectfully disagrees with the Examiner's assertion. The relied upon sections of the reference fails to teach or suggest applicant's "building a logical processing map."

Murray fails to teach or suggest the logical processing map disclosed within applicant's application. The relied upon sections of Murray disclose a known feature within IMS wherein logical relationships may be used to relate segments residing in different physical databases or to reorder a hierarchical structure within a single physical database. This capability within IMS is simply not relevant with respect to the logical processing map defined in the present application, since the capability within IMS to define a logical relation does not alter the operational effects of unload taught by Murray, wherein only complete database records are unloaded with no additional capability for segment selectivity within the unload operation.

The present application defines a logical processing map as specifying eligible segment types for inclusion within the target unload file to be utilized during unload processing. The logical processing map is generated from a database definition, a global directive, a set of segment directives and an optional inclusive key list (in applicant's specification, please see page 10, lines 3-6; and page 16, lines 2-7).

In summary, Murray does not teach or suggest a global directive or a set of segment directives, which together comprise the claimed segment specific selection criteria. These elements of applicant's claim 1, 11, 12, and 22 are essential elements in enabling segment selectivity within an unload of a hierarchical database. Murray further fails to teach or suggest a logical processing

Application No. 10/053,442
Amendment Dated August 2, 2004
Reply to Office Action of April 7, 2004

map, which is also an essential element of claims 1, 12 and 22. The combination of these elements, with various other claimed elements achieve the novel and unobvious capability of unloading a hierarchical database with segment selectivity, a capability not taught or suggested by Murray or Koeppen.

To establish a prima facie case of obviousness, all of the claim limitations must be taught or suggested by the prior art, (see MPEP 2143.03.) In this regard, in view of the above tendered arguments, it is respectfully submitted that the Examiner has not made a prima facie case of obviousness with respect to claims 1, 11, 12 and 22.

Claims 2-10; 13-21; 23-30

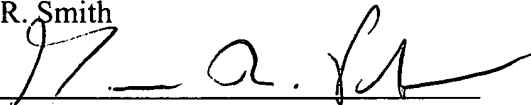
Applicant respectfully traverses the Examiner's rejections. Each of claims 1-10; 13-21; and 23-30 depend from one of independent claims 1, 11, 12, or 22. Therefore the arguments articulated for each of independent claims 1, 11, 12 and 22 above apply with equal force to any claims depending therefrom. Accordingly, claims 2-10; 13-21; and 23-30 patentably define over the cited reference(s) for at least the same reasons.

Application No. 10/053,442
Amendment Dated August 2, 2004
Reply to Office Action of April 7, 2004

Conclusion

Applicant therefore respectfully requests that the Examiner reconsider all currently outstanding objections and rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this Application, the Examiner is invited to telephone the undersigned at the number provided. Prompt and favorable consideration of this Response is hereby solicited.

Respectfully submitted,
Alan R. Smith

By: 

Gregory M. Plow, Reg. No. 43,005
Agent for Applicant
International Business Machines Corporation
Intellectual Property Law
555 Bailey Avenue, J46A/G460
San Jose, CA 95141-9989
Telephone: (408) 463-2113

Date: August 2, 2004